



Complete Summary

TITLE

Atrial fibrillation (AF) and atrial flutter: percentage of calendar months during the reporting year during which patients aged 18 years and older with a diagnosis of nonvalvular AF or atrial flutter, receiving warfarin therapy, have at least one INR measurement made.

SOURCE(S)

American College of Cardiology, American Heart Association, Physician Consortium for Performance Improvement®. Atrial fibrillation and atrial flutter physician performance measurement set. Chicago (IL): American Medical Association; 2007 Dec. 21 p. [1 reference]

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of calendar months during the reporting year during which patients aged 18 years and older with a diagnosis of nonvalvular atrial fibrillation (AF) or atrial flutter, receiving warfarin therapy, have at least one international normalized ratio (INR) measurement made.

RATIONALE

Frequent monitoring of international normalized ratio (INR) level is essential to guiding warfarin dose adjustment to maintain anticoagulation intensity in the desired target range. More frequent monitoring may be required during initiation

of warfarin therapy or when other drugs that interact with warfarin are started or stopped.

The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:

2006 American College of Cardiology/American Heart Association/European Society of Cardiology (ACC/AHA/ESC) Guidelines for the Management of Patients with Atrial Fibrillation

Monitoring of INR

1. Antithrombotic therapy to prevent thromboembolism is recommended for all patients with atrial fibrillation (AF), except those with lone AF or contraindications.
2. The selection of the antithrombotic agent should be based upon the absolute risks of stroke and bleeding and the relative risk and benefit for a given patient.
3. Anticoagulation with a vitamin K antagonist is recommended for patients with more than one moderate risk factor. Such factors include age 75 years or greater, hypertension, heart failure (HF), impaired left ventricular (LV) systolic function (ejection fraction 35% or less or fractional shortening less than 25%), and diabetes mellitus.
4. For patients without mechanical heart valves at high risk of stroke, chronic oral anticoagulant therapy with a vitamin K antagonist is recommended in a dose adjusted to achieve the target intensity INR of 2.0 to 3.0, unless contraindicated. Factors associated with highest risk for stroke in patients with AF are prior thromboembolism (stroke, transient ischemic attack [TIA], or systemic embolism) and rheumatic mitral stenosis.
5. INR should be determined at least weekly during initiation of therapy and monthly when anticoagulation is stable.
6. Aspirin, 81 to 325 mg daily, is recommended as an alternative to vitamin K antagonists in low-risk patients or in those with contraindications to oral anticoagulation.
7. Antithrombotic therapy is recommended for patients with atrial flutter as for those with AF.

PRIMARY CLINICAL COMPONENT

Nonvalvular atrial fibrillation (AF); atrial flutter; warfarin therapy; international normalized ratio (INR) monitoring

DENOMINATOR DESCRIPTION

Number of calendar months in which the patient aged 18 years and older with a diagnosis of nonvalvular atrial fibrillation (AF) or atrial flutter received warfarin therapy (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

NUMERATOR DESCRIPTION

Number of calendar months in which at least one international normalized ratio (INR) measurement was made

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

NATIONAL GUIDELINE CLEARINGHOUSE LINK

- [ACC/AHA/ESC 2006 guidelines for the management of patients with atrial fibrillation. A report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines and the European Society of Cardiology Committee for Practice Guidelines \(Writing Committee to Revise the 2001 Guidelines for the Management of Patients With Atrial Fibrillation\).](#)

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Unspecified

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Internal quality improvement

Application of Measure in its Current Use

CARE SETTING

Ambulatory Care

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Individual Clinicians

TARGET POPULATION AGE

Age greater than or equal to 18 years

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Unspecified

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

Unspecified

UTILIZATION

Unspecified

COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

Calendar months in which the patient aged 18 years and older with a diagnosis of nonvalvular atrial fibrillation (AF) or atrial flutter received warfarin therapy

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

Number of calendar months in which the patient aged 18 years and older with a diagnosis of nonvalvular atrial fibrillation (AF) or atrial flutter received warfarin therapy

Exclusions

Documentation of patient reason(s) for no international normalized ratio (INR) measurement: Examples of patient reasons for no INR measurement include, but are not limited to:

- Month(s) during a calendar year in which patient noncompliance with INR monitoring is documented, despite one or more documented attempts to contact the patient to ensure compliance.

Documentation of system reason(s) for no INR measurement: Examples of system reasons for no INR measurement include, but are not limited to:

- Month(s) during a calendar year in which monitoring of INR is documented as the responsibility of another caregiver.

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Clinical Condition
Therapeutic Intervention

DENOMINATOR TIME WINDOW

Time window brackets index event

NUMERATOR INCLUSIONS/EXCLUSIONS**Inclusions**

Number of calendar months in which at least one international normalized ratio (INR) measurement was made

Exclusions

None

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Episode of care

DATA SOURCE

Administrative data
Medical record

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

Measure #3: monthly international normalized ratio (INR) measurement.

MEASURE COLLECTION

[The Physician Consortium for Performance Improvement® Measurement Sets](#)

MEASURE SET NAME

[Atrial Fibrillation and Atrial Flutter Physician Performance Measurement Set](#)

SUBMITTER

American Medical Association on behalf of the American College of Cardiology, the American Heart Association, and the Physician Consortium for Performance Improvement®

DEVELOPER

American College of Cardiology
American Heart Association
Physician Consortium for Performance Improvement®

FUNDING SOURCE(S)

Unspecified

COMPOSITION OF THE GROUP THAT DEVELOPED THE MEASURE

N. A. Mark Estes, III, MD, FACC, FAHA, FHRS (*Co-Chair*); Jonathan L. Halperin, MD, FACC, FAHA (*Co-Chair*); Hugh Calkins, MD, FACC, FAHA; Michael D. Ezekowitz, MB, ChB, DPhil, FACC; Paul Gitman, MD, MACP; Alan S. Go, MD; Robert L. McNamara, MD, MHS, FACC; Joseph V. Messer, MD, MACC, FAHA; James L. Ritchie, MD, FACC, FAHA; Sam J. W. Romeo, MD, MBA; Albert L. Waldo, MD, FACC, FAHA, FHRS; D. George Wyse, MD, PhD, FACC, FAHA, FHRS

Mark S. Antman, DDS, MBA, American Medical Association; Joseph Y. Gave, MPH, American Medical Association; Karen S. Kmetik, PhD, American Medical Association

Joseph M. Allen, MA, American College of Cardiology; Susan L. Morrisson, American College of Cardiology

Gayle Whitman, PhD, American Heart Association

Rebecca A. Kresowik, Facilitator; Timothy F. Kresowik, MD, Facilitator

FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST

Conflicts, if any, are disclosed in accordance with the Physician Consortium for Performance Improvement® conflict of interest policy.

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2007 Dec

MEASURE STATUS

This is the current release of the measure.

SOURCE(S)

American College of Cardiology, American Heart Association, Physician Consortium for Performance Improvement®. Atrial fibrillation and atrial flutter physician performance measurement set. Chicago (IL): American Medical Association; 2007 Dec. 21 p. [1 reference]

MEASURE AVAILABILITY

The individual measure, "Measure #3: Monthly International Normalized Ratio (INR) Measurement," is published in the "Atrial Fibrillation and Atrial Flutter Physician Performance Measurement Set." This document and technical specifications are available in Portable Document Format (PDF) from the American Medical Association (AMA)-convened Physician Consortium for Performance Improvement® Web site: www.physicianconsortium.org.

For further information, please contact AMA staff by email at cqi@ama-assn.org.

NQMC STATUS

This NQMC summary was completed by ECRI Institute on June 9, 2008. The information was verified by the measure developer on August 13, 2008.

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